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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,126	10/12/2001	Scott T. Millward	10017266-1	2413

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EXAMINER

SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,126

Applicant(s)

MILLWARD ET AL.

Examiner

Suresh K. Suryawanshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are presented for examination.
2. The text of those sections of Title 35 U.S. Code not included in this action can be found in the prior office action.
3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US Patent No 6,112,301) in view of Yaseen et al (An Extensible Kernel Object Management System; hereinafter Yaseen).
4. As per claim 1, Johnson discloses

booting an operating system having a plurality of tunable kernel subsystems [Fig. 3; col. 2, line 62 -- col. 3, line 3; col. 5, lines 35-37; col. 6, lines 38-40, 63-67; col. 7, lines 4-9, 25-30; col. 8, lines 21-26; operating system having a plurality of tunable parameters];

storing a representation of at least one base tunable having a set of inheritable properties in a memory of the computer [Fig. 3; col. 2, line 62 -- col. 3, line 3; col. 7, lines 4-9, 25-30; col. 8, lines 21-26; at least one tunable functional sub-system of the operating system is being stored in the system's memory].

Johnson clearly discloses systems and techniques for customizing and/or tuning operating systems for computing systems and the like. Johnson does not expressly disclose the use of an objected oriented programming to implement the systems and techniques. However, Yaseen expressly discloses the use of an object oriented programming to provide an extensible kernel object management system [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

5. As per claim 9, Johnson discloses

boot an operating system having a plurality of tunable kernel subsystems [Fig. 3; col. 2, line 62 -- col. 3, line 3; col. 5, lines 35-37; col. 6, lines 38-40, 63-67; col. 7, lines 4-9, 25-30; col. 8, lines 21-26; operating system having a plurality of tunable parameters];

store a representation of at least one base tunable having inheritable properties in the memory of the computing apparatus [Fig. 3; col. 2, line 62 -- col. 3, line 3; col. 7, lines 4-9, 25-30; col. 8, lines 21-26; at least one tunable functional sub-system of the operating system is being stored in the system's memory].

Johnson clearly discloses systems and techniques for customizing and/or tuning operating systems for computing systems and the like. Johnson does not expressly disclose the use of an objected oriented programming to implement the systems and techniques. However, Yaseen expressly discloses the use of an object oriented programming to provide an extensible kernel object management system [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

6. As per claim 15, Johnson discloses

store a representation of at least one base tunable having inheritable properties in the memory of the computing apparatus [Fig. 3; col. 2, line 62 -- col. 3, line 3; col. 7, lines 4-9, 25-30; col. 8, lines 21-26; at least one tunable functional sub-system of the operating system is being stored in the system's memory]; and

Johnson clearly discloses systems and techniques for customizing and/or tuning operating systems for computing systems and the like. Johnson does not expressly disclose the use of an objected oriented programming to implement the systems and techniques. However, Yaseen expressly discloses the use of an object oriented programming to provide an extensible kernel

object management system [pages 249-262; detailed an extensible kernel object model].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters.

Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

7. As per claims 2, 10 and Johnson discloses the invention substantially. Johnson does not disclose about instance creation. However, Yaseen expressly discloses about instance creation [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

8. As per claims 3, 7, 17 and 20, Johnson discloses the invention substantially. Johnson does not disclose about deallocating at least one of the first instance of the base tunable. However, Yaseen expressly discloses about instance creation and memory management by allocating and deallocating is a must in object-oriented programming [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for

implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

9. As per claims 4, Johnson discloses the invention substantially. Johnson does not disclose about writing data indicative of the identity of said one of the base tunables into said first instance data structure and said second instance data structure. However, Yaseen expressly discloses about instance creation [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

10. As per claims 5, 6, 11, 13, 18 and 19, Johnson discloses the invention substantially. Johnson does not disclose about inheritable property. However, Yaseen expressly discloses about instance creation and an instance inherits all the inheritable properties from its base class or object [pages 249-262; detailed an extensible kernel object model]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are related to tunable kernel parameters. Moreover, a routineer would like to use object oriented programming for implementation over non-object oriented programming to get the benefits of reusability, reliability, robustness, extensibility and maintainability.

Response to Arguments

11. Applicants' arguments filed 01/19/06 have been fully considered but are not persuasive.

12. In remarks, applicants argued in substance that (1) the '301 patent is directed to customizing an OS, a part of which includes tuning parameters. The '301 patent is silent regarding anything related to a DB kernel. In contrast, the Yaseen Ref. is directed to using an objected-oriented structure for a database (including the kernel thereof) rather than the traditional monolithic structure. The Yaseen Ref. is silent regarding anything related to an OS kernel. There is a disconnection in the Examiner's logic. In other words, the Examiner has failed to provide a reasonable explanation for why the skilled artisan would have looked to a piece of DB kernel art to modify a piece of OS kernel art.

13. As to point (1), first the Examiner thanks to applicants to agree that the '301 patent is directed to customizing an OS including tuning parameters and the Yaseen Ref. clearly discloses the use of an objected-oriented structure for a database including the kernel thereof. The Examiner disagrees with applicants that there is no motivation or connection in these two references. As a routineer in the art, one who knows the great benefits of reusability, reliability, robustness, extensibility and maintainability of an object oriented programming implementations, why not will look into and search if someone else has utilized the object oriented structure in a similar field (here kernel). One would like to learn from other's experiences if that has worked or not before implementing. In this case, the Yaseen Ref. clearly discloses "In this paper, we have described our experiences with designing and implementing a

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Kernel Object Management System (KOMS); an intermediate layer of a layered extensible object-oriented knowledge base management system called OSAM*.KBMS/X. The issues of building a generalized system have been addressed by proposing an intermediate layer with upward and downward extensibility instead of building a monolithic system. A deliberate attempt has been made to use a set of core object modeling constructs as a basis for the system. The system has been implemented with extensibility as a key goal.” Please see pages 261-262; 1st paragraph of conclusion. Even though, the Yaseen Ref. further says specifically that it can be used with a database, it does not mean to limit the object-oriented implementation to only a database. Therefore, there is a connection in the Examiner’s logic. The Examiner has provided a reasonable explanation for why one of ordinary skill in the art would have looked into an extensible kernel object management system [which is also the title of the Yaseen Ref.] and getting the benefits of reusability, reliability, robustness, extensibility and maintainability is a very good reasoning and motivation.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suresh K. Suryawanshi whose telephone number is 571-272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sks

March 21, 2006



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